

**Amendments to the Specification:**

Please replace the first full paragraph on page 3 of the specification with the following amended paragraph:

In order to achieve the stated objectives, the present invention mainly focuses on the manufacturing process technology of the support which supports the conical horn antenna, the circular absorption layer which has the identical ~~width~~ diameter to that of a bottom cross section of the waveguide of the antenna and the circular shaped thermal isolation leg.

Please replace the first full paragraph on page 6 of the specification with the following amended paragraph:

As shown in FIG. 2, FIG. 3 and FIG. 4, the conical horn antenna structure 20 is supported by the supports 30a, 30b on the substrate 10 and the waveguide 25 of the conical horn antenna is formed at the center of the conical horn antenna structure 20. The image detector 40 is formed at the lower section of the waveguide 25 and the image detector 40 comprises an absorption layer 50 whose ~~width~~ diameter is identical to that of a bottom cross section of the waveguide 25. The image detector 40 also ~~comprises~~ includes a circular shaped thermal isolation leg 60, which spans a greater distance than the diameter of the horn antenna wave guide 25, and is formed on the surface of the image detector 40 ~~whose length is larger than that of the waveguide 25.~~

Please replace the second full paragraph on page 6 of the specification with the following amended paragraph:

The supports 30a, 30b prevent the absorption layer 50 of the image detector from any damages due to its floatation above the substrate 10 at the time of coupling between the image

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detector 40 and the conical horn antenna. Also, in order to maximize the coupling efficiency between the conical horn antenna and the image detector 40, the ~~width~~ diameter of ~~the~~ waveguide of the conical horn antenna coincides with the ~~width~~ diameter of the absorption layer 30.

Please replace the paragraph spanning pages 6 and 7 of the specification with the following amended paragraph:

The thermal isolation leg ~~[[40]]~~ 60, which is formed in a circular shape on the surface of the image detector 40 so it reduces the thermal conductivity and ~~improve~~ improves the sensitivity of the image detector ~~[[10]]~~ 40.